Compatibility Determination

Station Name: Chincoteague NWR **Date Established:** May 13, 1943

Establishing Authority:

Migratory Bird Conservation Act

Purpose(s) for which Established:

For use as an inviolate sanctuary, or for any other management purpose for migratory birds.

Description of Proposed Use(s): Miscellaneous: Weddings and Charitable Organization Activities

Weddings and charitable organization activities occur very infrequently. During the period 1990 - 1993 a permit for one wedding and eight (two each year) charitable organization activities were issued.

Weddings usually take place on the beach adjacent to the parking areas and involve less than 20 participants. This activity is usually coordinated through the Assateague Island National Seashore since most occur within their assigned area of administration. The beach is utilized for the ceremony only. Receptions are held off the island.

Two charitable organization activities are regularly held on the refuge. These include the March of Dimes WalkAmerica and the St. Jude Children's Hospital Bike-A-Thon. The WalkAmerica which traditionally takes place the first Sunday in May originates and stages off the refuge. The walkers, numbering 2-3,000, come onto the refuge and traverse the 3.5 mile Wildlife Loop once, returning to the off-refuge point of origin. Varying numbers of walkers are on the refuge a total of two to three hours. The Bike-A-Thon which usually takes place in April or early May involves 10 - 20 bicyclists riding around the Wildlife Loop a number of times based on pledges per miles ridden.

Anticipated Impacts on the Refuge Purpose(s):

Disturbance to shorebirds on the beach will be similar to that described in the compatibility determination for normal beach use activities; however, since less than one wedding occurs each year in areas open to recreational beach use, the impact of this activity to the migration birds is insignificant.

The primary areas of impact for both charitable organization activities occur adjacent to North and South B, A, and F impoundments as the route of travel for participants is the paved 3.5 mile Wildlife Loop which encircles South B and is adjacent to the periphery of portions of the other three impoundments. At the time of the year of these activities several species of waterfowl, marsh and water birds, and a larger number and variety of shorebirds may be impacted. Due to the short duration of these activities, impacts will be minimal. See

appended data sheets for specific peak monthly migratory bird populations.

Conflicts arise when migratory birds and humans are present in the same areas (Boyle and Samson 1985). Response of wildlife to human activities includes: departure from site (Owen 1973, Burger 1981, Kaiser and Fritzell 1984, Korschgen et al. 1985, Henson and Grant 1991, Kahl 1991, Klein 1993), use of sub-optimal habitat (Erwin 1980, Williams and Forbes 1980), altered behavior (Burger 1981, Korschgen et al. 1985, Morton et al. 1989, Ward and Stehn 1989, Havera et al. 1992, Klein 1993), and an increase in energy expenditure (Morton et al. 1989, Belanger and Bedard 1990). Altered behavior that increases energy expenditure, can cause a decline in body condition (Morton et al. 1989, Belanger and Bedard 1990, Morton 1991). Waterfowl in poor condition experienced higher mortality rates (Haramis et al. 1986, Hepp et al. 1986). Body condition and lipid reserves during winter and spring migration can affect reproductive success of waterfowl (Ankney and MacInnes 1978, Raveling 1979, Krapu 1981).

On Back Bay NWR Laskowski et al. (1993), studied behavior of snowy egrets, female mallards, and greater yellowlegs within 91.4 meters of impoundment dikes used by the general public. Behavior of snowy egrets was recorded during August and September 1992 to represent post-breeding marsh and wading birds. Mallards were monitored during migration (November 1992) and during the winter January (1993). Greater yellowlegs' behavior was observed during the northward shorebird migration (May 1993). Behavior was monitored during the typical public activities of walking, bicycling, and driving a vehicle past the sample sites.

The study found that snowy egret resting behavior decreased and alert behavior increased in the presence of humans. Preening decreased when humans were present, but this change was not significant. Feeding, walk/swim, and flight behaviors were not related to human presence. Female mallards in November increased feeding, preening and alert behaviors in the presence of humans. Resting, walk/swim, and flight behavior were not influenced by human presence. In January, female mallard resting and preening behavior were not influenced by the presence of humans. However, feeding, alert, walk/swim, and flight behaviors were related to human presence. Greater yellowlegs increased alert behavior in the presence of humans. No other behaviors were affected. Maintenance behavior(combined feeding, resting, and preening) decreased when humans were present for all study species. In addition, this decrease was accompanied by an increase in escape behavior by each species. Maintenance behavior of mallards in January decreased in the presence of vehicles and combined disturbance. Escape behavior increased when vehicles were present. Maintenance behavior of greater yellowlegs declined when bicycles and vehicles were present but was not influenced by pedestrian presence. The presence of bicycles and vehicles increased escape behavior. Snowy egrets and female mallards increased movement between subplots and to areas within the study area but further from the disturbance.

Kelin (1993), Freddy et al. (1986) and Vaske (1983) found out-of-vehicle activities to be more disturbing than vehicular traffic. Klein (1989), in a disturbance study at J. N. "Ding" Darling National Wildlife Refuge, found that approaching birds on foot was clearly the most disruptive activity of visitors to the refuge.

Determination: (Check One)

This use is compatible __X__ This use is not compatible _____

The following stipulations are required to ensure compatibility:

WalkAmerica will be scheduled prior to or after peak shorebird migration.

WalkAmerica participants will not use skateboards, roller skates, bicycles or other wheeled devices.

Audio devices such as radios and tape recorders will not be permitted.

For the Bike-A-Thon, participants will stay on the roadway, refrain from racing, and keep noise to a minimum. The number of participants will be limited to a maximum of 20 individuals.

Weddings will only be permitted in areas normally open to the public.

Justification:

Although minor disturbance of a short duration will occur to migratory birds along the edges of the four affected impoundments, other suitable habitat is available on the refuge which does not receive this disturbance. These uses are very low impact, low cost, and highly controllable. Allowing these activities meets the needs of a wide variety of customers fostering positive customer/refuge relations. The charitable organizations are able to raise funds for very good causes. The refuge provides a safe aesthetic area for these events. Customers who normally will not be exposed to refuge and wildlife habitat resources will have an opportunity to do so. Through this experience they may become aware of the value of national wildlife refuges and promote fish and wildlife conservation.

These uses qualify as Categorical Exclusions from 516 DM 6 Appendix 1, B(5) - Minor changes in the amounts or types of public use on FWS lands, in accordance with existing regulations, management plans and procedures: and C(4) - The issuance or reissuance of special use permits that result in no or negligible environmental disturbance.

Prepared By: **John D. Schroer, Refuge Manager**
(Name/Title/Signature/Date)

Reviewed By:_____
(Name/Title/Signature/Date)

_____
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